

How Safe is New Orleans from Flooding?

New Orleans is one of America's most important seaports, top tourist attractions and culturally unique cities; but, with much of its land below sea level, surrounded by lakes on three sides and bisected by America's largest river, it is also among our most flood-prone places.

Since the 19th Century, the U.S. Army Corps of Engineers has worked to protect the city from floods coming down the Mississippi River - but what if the attack comes from the other direction with a hurricane? It happened in 1965, when Hurricane Betsy hit the city with 150 mph winds, bringing storm surges on the lakes surrounding New Orleans (in some parts of the city, flood waters were up to the eaves of the houses), claiming 81 lives and causing over \$1 billion (\$5 billion in today's dollars) in damage.

Betsy prompted Congress to authorize a ring of levees 16 feet high around the city - a project the Corps of Engineers is completing today. This level of protection was based on the science of storm prediction as it existed in the 1960s. The question remains, however, whether this level of protection would be sufficient to protect the city from a category 4 or 5 hurricane today - or even a category 3 storm that lingered over the city. Since the 1960s, New Orleans has been sinking - in some areas at the rate of $\frac{1}{2}$ inch per year. The distance from the Gulf Coast to New Orleans has also been shrinking. A century ago, a hurricane would have to cross 50 miles of marshland able to reduce the storm's energy; today only half as much.

The June, 2003 issue of the American Society of Civil Engineers' Civil Engineering magazine examines the modern modeling techniques being used to define a level of protection for New Orleans appropriate for the 21st Century. The article is available at

<http://www.pubs.asce.org/ceonline/ceonline03/0603feat.html>.